DOCUMENT RESUME

ED 081 778 SP 006 934

TITLE	Tutoring in Reading and Mathematics. An Individualized Volunteer Educatien Module.
INSTITUTION	Dade County Public Schools, Miami, Fla. Dept. of Staff Development.
SPONS AGENCY	Florida State Dept. of Education, Tallahassee.; Office of Education (DHEW), Washington, D.C.
PUB DATE	[71]
NOTE	74p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Classroom Environment; *Elementary Grades; *Performance Based Teacher Education; Performance Specifications; Teaching Skills; *Training Objectives; *Volunteer Training

ABSTRACT

This module provides performance criteria for the development of interpersonal skills that are instrumental to a tutor developing the math and reading skills of elementary students. It is comprised of three mini-modules dealing with the folliwing: a) the tutor's role, b) tutoring tips, and c) games and activities for reading and math tutors. (Worksheets for each mini-module are enclosed as is a training device.) (JB)

ED 081778

AN INDIVIDUALIZED VOLUNTEER EDUCATION MODULE

TUTORING IN READING AND MATHEMATICS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Produced under the supervision
of the State of Florida
Department of Education
Floyd T. Christian, Commissioner
Tallahassee, Florida

SP 006 934

FILMED FROM BEST AVAILABLE COPY

This instructional module was produced for use in training projects funded through a grant from the United States Office of Education to the State of Florida Department of Education, under Part B, Subpart 2, of the Education Professions Development Act (Title V of the Higher Education Act of 1965). The material for this module was developed during the pilot phase of the School Volunteer Program in the North Central District, Dade County Public Schools, under the direction of the District Superintendent, Dr. Jeff West. This edition was prepared by the following development team:

Dr. Leonard Britton
Associate Superintendent for Instruction
Dade County Public Schools

Dr. Audrey Jackson, School Volunteer Coordinator

Diane H. Baker
Patricia O. Frost
Nancy B. Cooper
Evelyn O. Looney

MODULES IN CLUSTER IX: Implementing A School Volunteer Program

General Skills and Knowledge

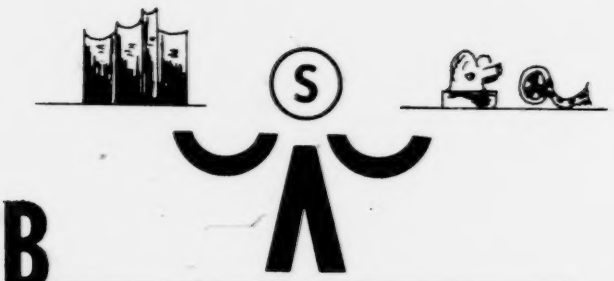
1. Administering A School Volunteer Program
2. Becoming A School Volunteer
3. Building One-To-One Relationships
4. Using the Services Of A School Volunteer

Specific Skills and Knowledge

5. Assisting In The Library - Media Center
6. Assisting In The Classroom
7. Assisting With Clerical Tasks
8. Assisting With Physical Education
9. Helping Students Develop Appropriate Behavior
10. Tutoring In Reading and Mathematics
11. Volunteering In Special Education

TABLE OF CONTENTS

	Page
PROSPECTUS	1
Goal	1
Rationale	1
Instructions to Volunteers	1
Instructions for Volunteer Resource Person	1
Overview	3
MINI-MODULES	
Mini-Module I--The Role of a Tutor	6
Mini-Module II--Tutoring Tips	15
Mini-Module III--Reading or Math Tutor?	23
FEEDBACK SHEET	
DESCRIPTION OF B-2 VOLUNTEER EDUCATION MATERIALS	



B2

PROSPECTUS

GOAL

To provide a resource of basic knowledge and human relations understandings that will help the tutor develop the math and reading skills of students.

RATIONALE

All students need certain basic abilities in reading and mathematics if they are to function effectively in today's technological society. Each student, however develops these skills at his own individualized pace and through his own learning style. You, the tutor, can provide the reinforcement or alternate teaching strategy needed to help the student gain understanding in reading and math. Also, your individual attention and concern that the student improve his skills help him to relate his classroom experiences in reading and math to the real world. The activities in this module will help you to become an effective tutor.

INSTRUCTIONS TO VOLUNTEERS

1. Although this module has been designed for individualized learning, it is not intended that you work completely on your own. You may wish to arrange opportunities to work with other volunteers in small group situations.

2. You will be working closely with the Volunteer Resource Person or Volunteer Chairman in your school. This person will help provide the materials and equipment you need, clarity any portions of the procedures which are not clear, assist in making decisions about your progress, serve you during evaluation stages and generally facilitate your attainment of the objectives.

3. Use a notebook to record you reactions, answer the questions for the assessment items or work sheets, or make notes on your readings or experiences. DO NOT WRITE IN THIS MODULE.

4. Set aside time to discuss with the student's teacher any idea or point you have learned in this module that relates specifically to the student you are tutoring.

5. Obtain from the Volunteer Resource Person, or make a copy of the VOLUNTEER EDUCATION MODULE FEEDBACK SHEET on the last page of this module. When you have completed all the module objectives, fill out the FEEDBACK SHEET and obtain the signature of the School Volunteer Resource Person to verify your training for tutoring in reading and mathematics. The School Volunteer Resource Person will forward this FEEDBACK SHEET to the School Volunteer Program.

INSTRUCTIONS FOR THE VOLUNTEER RESOURCE PERSON

1. You are responsible for the activities and materials necessary to implement, monitor and evaluate the progress of the volunteer.

Instructions for the Volunteer Resource Person (Continued)

2. Duplicate all worksheets and the Volunteer Module Feedback Sheet so that each participant has a set. Remind the volunteers to keep each completed worksheet and other assignments in a separate notebook.

3. Many materials and resources are suggested, but only 2 are required for each volunteer. They are:

   a. Handbook for Volunteers, School Volunteer Program, Dade County Public Schools. Available from the School Volunteer Program Office, 1410 N. E. 2nd Avenue, Miami, Florida 33132. Phone 350-3100 (or the School Mail Code: A-1, School Volunteer Program, Room 210).

   b. The Laboratory Approach to Mathematics, Kidd, Meyers, Cilley. Chicago: Science Research Associates, 1970.

4. Each of the mini-modules is programmed to be self-administering but it is advisable that groups of volunteers begin together and work with the same area in order to provide for maximum interaction.

5. Schedule a time for volunteers to interact with others on specific ideas and suggested techniques presented in the module: meet with you, with the Volunteer Chairman, with other volunteers or with their assigned teacher.

6. Have each volunteer fill out the Volunteer Module Feedback Sheet at the completion of this module. Your signature at the bottom of the page certifies that the volunteer has completed training for tutoring in reading and mathematics.

7. Return this Volunteer Education Module and the Feedback Sheet at the completion of this module to:

   School Volunteer Program
   Division of Instruction, Room 210
   1410 N. E. 2nd Avenue
   Miami, Florida

   or

   Use the school mail to sent it to:

   A-1
   School Volunteer Program, Room 210
   Lindsey Hopkins Building

OVERVIEW OF MODULE

TITLE: TUTORING IN READING AND MATH

Mini-Module	Terminal Objective	Enabling Objectives
I. The Role of a Tutor	After observing students in a classroom and discussing with the Volunteer Resource Person (VRP) the tutor's role and personal reasons for being a tutor, the tutor will realize his immediate need for involvement in the schools.	1. After tutoring a student, the volunteer will be able to discuss with the VRP his reasons for being a tutor. 2. After completing Worksheet #I-1, The Role of a Tutor, the volunteer will be able to discuss with the VRP a tutor's responsibilities. 3. After completing Worksheet #I-2, Case Study, Worksheet #I-3, Student Observation, and Worksheet #I-4, Basic Needs of all Children, the volunteer will be able to state three reasons the student he is observing needs a tutor.
II. Tutoring Tips	The volunteer will be able to analyze his own tape recorded tutoring session by using Worksheet #II-1, Tutoring Critique.	1. After reviewing and discussing Study Sheet #II-1, Tutoring Tips with the VRP, the volunteer will be able to list 12 tutoring tips he will use when critiquing his own tutoring sessions. 2. The volunteer will tape record 15 minutes of his own 30-minute tutoring session and he will then critique the tape by using his own reference card of "tutoring tips".

OVERVIEW OF MODULE

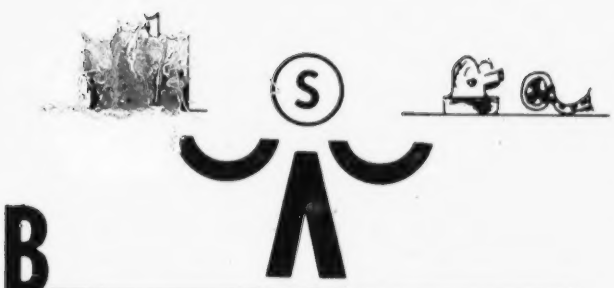
TITLE: TUTORING IN READING AND MATH

Mini-Module	Terminal Objective	Enabling Objectives
III. Reading or Math Tutor? Section A-- Reading Tutor	The volunteer will be able to successfully perform his duties as defined by the job descriptions for a language arts tutor in the Dade County Public Schools, Handbook for Volunteers.	1A. After the volunteer has studied Study Sheets III--#III--#1A and #2A and has observed students at work in a classroom, he will be able to identify ten primary grade language arts or reading skills. 2A. The volunteer will be able to identify 10 intermediate level (4th through 6th grade) language arts skills after studying Study Sheet III--#3A and completing Worksheet III-- #2A. 3A. After using and evaluating three teaching games from Worksheet III--#3A, make 3 teaching games which he can use to help primary grade students differentiate between certain letters. 4A. After observing primary or intermediate grade students playing Scrabble, Bingo and Ring Toss, the volunteer tutor will be able to identify 2 language arts objectives for each game and will be able to make one follow-up activity for each game.

OVERVIEW OF MODULE

TITLE: TUTORING IN READING AND MATH

Mini-Module	Terminal Objective	Enabling Objectives
III. Reading or Math Tutor? Section B--Math Tutor	The volunteer will be able to successfully perform his duties as defined by the job descriptions for a math tutor in the Dade County Public Schools, Handbook for Volunteers.	1B. After reading The Laboratory Approach to Mathematics, and reviewing Study Sheet III--#1B Primary Math Objectives, the tutor will be able to identify 10 primary level math objectives. 2B. After completing Worksheet III--#1B and Study Sheet III--#2B the volunteer will be able to identify 10 specific math objectives which students in the intermediate level, grades 4, 5, or 6, should be able to master. 3B. Given a number of instructional math games, the volunteer will design 6 games and develop a resource file of teaching activities which will help him teach specific primary math objectives. 4B. After planning a math lesson with a classroom teacher using a section of the daily newspaper, the volunteer will be able to use the **Classified Food** section of the newspaper to teach intermediate level students ratios and percentage of numbers.



B2

MINI-MODULE I:

The Role of a Tutor

MINI-MODULE I--The Role of a Tutor

PROSPECTUS

The terminal objective for this mini-module is:

> After observing students in a classroom and discussing with the Volunteer Resource Person (VRP) the tutor's role and personal reasons for being a tutor, the tutor will realize his immediate need for involvement in the schools.

The activities in this mini-module will exemplify the value of tutoring. Observation of students at work will help you focus on individuals' deficiences. There will be ample opportunity for you to share your feelings about being a tutor with other individuals.

To determine if this mini-module can be of use to you, turn to page 7 and take the Pre-assessment. You will find additional directions there.

MINI-MODULE I--The Role of a Tutor

PRE-ASSESSMENT

DIRECTIONS: Please use a separate sheet of paper when answering the following questions.

1. Can you discuss with the Volunteer Resource Person (VRP) your reasons for becoming a tutor-volunteer?

   A. Yes, then go on to question 2.

   B. No, then go on to Enabling Objective #1 of this mini-module, page 8 .

2. Can you discuss with the VRP 6 specific guidelines or the responsibilities for the role of a tutor?

   A. Yes, then go on to question 3.

   B. No, then go on to Enabling Objective #2 of this mini-module, page 9 .

3. After observing students and discussing your observations with the teacher, can you describe in writing 3 reasons the students need a tutor?

   A. Yes, then you have satisfactorily completed this mini-module. Please turn to Mini-Module II, page 15 .

   B. No, then go on to Enabling Objective #3 of this mini-module, page 11 .

MINI-MODULE I--The Role of a Tutor

ENABLING OBJECTIVE 1

> After tutoring a student the volunteer will be able to discuss with the VRP his reasons for being a tutor.

ACTIVITIES FOR OBJECTIVE 1:

1. Ask the VRP for the Volunteer Education Module, Becoming a School Volunteer. Turn to Mini-Module I, Why Am I Here? Complete question 1 and 2 of the Pre-assessment, page 5.

2. Have a classroom teacher identify one student who might benefit from hearing you read a story to him. Video-tape or audio-tape his behavior and discussion. Review the tape. Share your personal feelings of the situation with another volunteer or the VRP.

3. Go back to question 1 of the Pre-assessment on page 7 of this module.

MINI-MODULE I--The Role of a Tutor

ENABLING OBJECTIVE 2

> After completing Worksheet #I-1, The Role of a Tutor, the volunteer will be able to discuss with the VRP a tutor's responsibilities.

ACTIVITIES FOR OBJECTIVE 2:

1. Review with another volunteer the job descriptions for a language arts and mathematics tutor in the Dade County Public Schools, Handbook for Volunteers.

2. Interview a teacher and ask him the following questions:

   A. If you had the opportunity to have a tutor volunteer assist you in the classroom, what would be his responsibilities?

   B. What is the value of having a tutor work with specific students in your classroom?

3. Compare your notes from activity 2, teacher-interview, with the job descriptions as stated in Handbook for Volunteers.

4. On a separate sheet of paper complete Worksheet #I-1, The Role a a Tutor.

5. Please go back to question 2 of the Pre-assessment on page 7 of this mini-module.

B_2

WORKSHEET #I-1

THE ROLE OF A TUTOR

DIRECTIONS: Read each statement in the first column and on a separate sheet of paper record if the items are or are not the tutor's responsibility. Check your answers with the answer key on the bottom of this page. If you get 8 out of 10 correct continue on to activity 5, page 9 . If not, discuss this worksheet with the VRP.

IT IS THE TUTOR'S RESPONSIBILITY TO:	YES	NO
1. Identify the students to be tutored.		
2. Know how to use available audio-visual equipment and material.		
3. Listen carefully to each student.		
4. Diagnose individual student's reading problems.		
5. Keep up-to-date tutoring records.		
6. Have tutor-parent conferences periodically.		
7. Help individual students with a learning disability.		
8. Relate reading or math concepts to real life situations.		
9. Prepare games and teaching materials for student use.		
10. Become more skillful in the use of effective questioning.		

ANSWER KEY: YES: 2, 3, 5, 7, 8, 9, 10; NO: 1, 4, 6.

MINI-MODULE I--The Role of a Tutor

ENABLING OBJECTIVE 3

> After completing Worksheet #I-2, Case Study; Worksheet #I-3, Student Observation; and Worksheet #I-4, Basic Needs of All Children, the volunteer will be able to state three reasons the student he is observing needs a tutor.

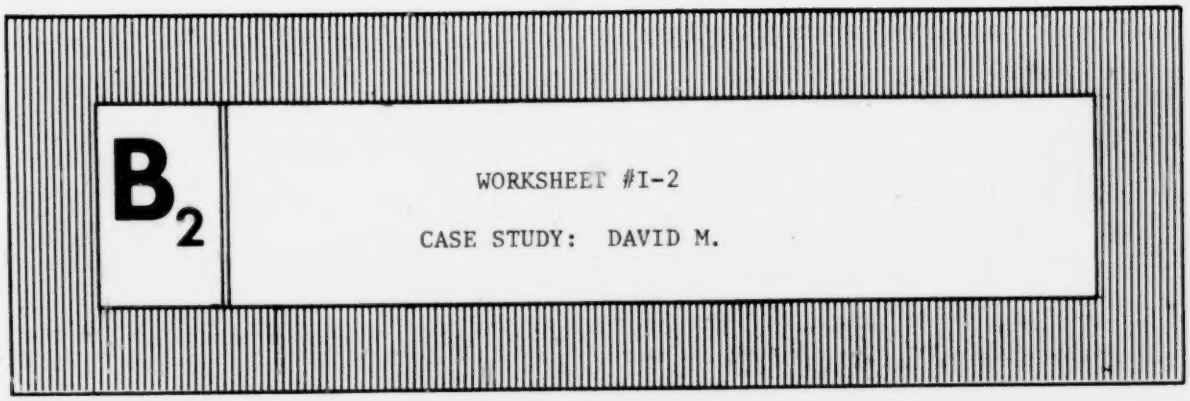
ACTIVITIES FOR OBJECTIVE 3:

1. Read Worksheet #I-2, Case Study. On a separate sheet of paper list 6 reasons the "situation" in the classroom was able to exist. Discuss your answers with the VRP and a psychologist or guidance counselor if they are available.

2. Using Worksheet #I-3, Student Observation Guide, observe one student in a classroom. Discuss your observation with the classroom teacher.

3. Study the behavior patterns of a student in another grade or class and write case study. Discuss with another volunteer the background of the student, the classroom situation, and role of the tutor.

4. Complete Worksheet #I-4, Basic Needs of All Children. Discuss your answers with a VRP.



BACKGROUND:

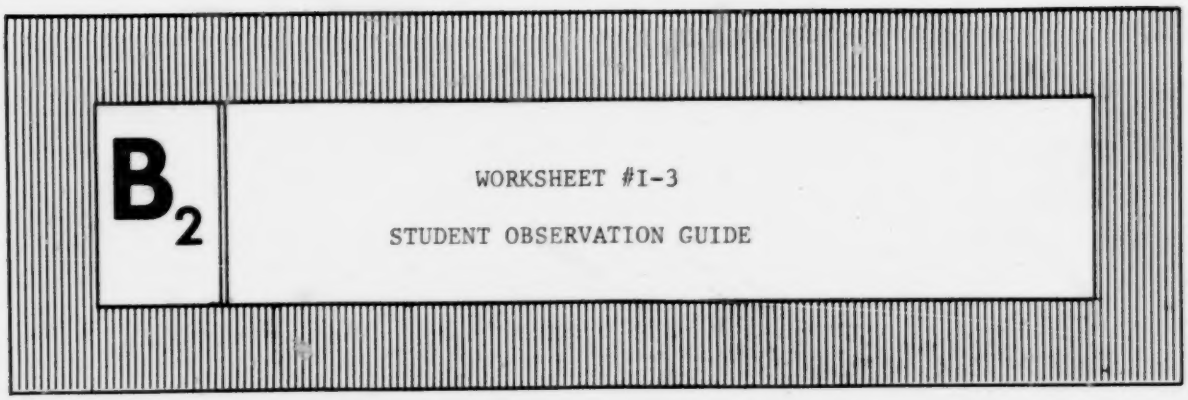
David M., six and a half years old, lives with his mother, grandmother and three older brothers, 8½, 10½ and 11½ years of age, in a one bedroom apartment.

Mrs. M., age 31, was born in Miami, has had five years of formal education, never travelled outside of Dade County, and has been married twice. She is supporting her family on a $196.00 per month "relief" check, $85.00 of which she must give to her landlord for rent. Occasionally, she is employed as a "day worker" (domestic). Mrs. M. spends about $15.00 a month on magazines, movies and playing bingo at a local recreation center. She also enjoys television and sleeping late.

David is in good physical and mental health (according to the Department of Public Health's Medical Report), but needs dental assistance. He is a reliable child who, both at home and at school, is called upon to complete many "housekeeping" tasks. He never resists having to do these chores. David needs constant praise, encouragement to participate in group activities. He is not readily accepted by his peers. Though he has an adequate speaking vocabulary for a first grade student, David thus far is not cognizant of all letters, sounds, or of the written word.

SITUATION:

On a Monday morning in mid-December, David, tired and restless, was found sitting at his desk, trying to complete a "phonics worksheet". David had been at this activity for 15 minutes and had completed 2 of the 12 items. His eyes were wandering from his paper to the window and back to his paper.



DIRECTIONS: Select one student to observe. Answer the following questions on a separate sheet of paper. Discuss your observations with the classroom teacher.

I. Overview of classroom:

A. How many students are there in the classroom?

B. How many activities are going on at one time?

C. Does the teacher have any assistance in the room?

D. Could the teacher use some assistance? Why?

II. Student observation:

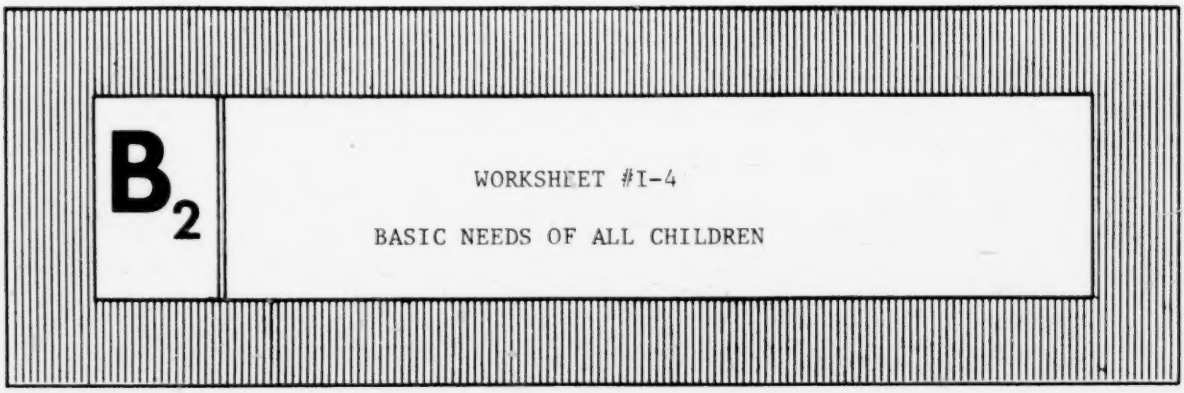
A. Is the student whom you are observing involved in a specific activity? What is the objective of the activity?

B. Is the student successfully completing the task? Why?

C. How does the student relate to his peers and teacher?

D. Describe the student: attention span, interest in the activity, degree of accomplishment, apparent reading or math problems.

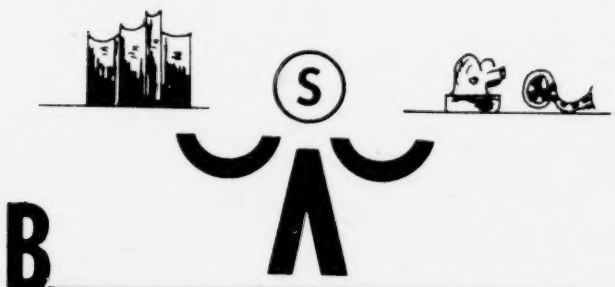
E. Could the student benefit from working with a tutor? How?



DIRECTIONS: On a separate sheet of paper define the following basic needs. List any additional items which you think are basic to the development of all children.

BASIC NEEDS OF ALL CHILDREN:

1. Love . . .
2. Acceptance . . .
3. Security . . .
4. Protection . . .
5. Independence . . .
6. Moral Standards . . .
7. Guidance . . .
8. Control . . .



B2

MINI-MODULE II:

Tutoring Tips

MINI-MODULE II--Tutoring Tips

PROSPECTUS

The terminal objective of this mini-module is:

> The volunteer will be able to analyze his own tape recorded tutoring session by using Worksheet #II-1, Tutoring Critique.

The basic goal of any tutorial program is to help students who are having an academic, social or emotional problem in school. In order to assure maximum success at each tutoring session it is necessary for the tutor to have some basic guidelines. This mini-module will provide you with some "tutoring tips" as well as help you evaluate your own performance during a tutoring session.

MINI-MODULE II--Tutoring Tips

PRE-ASSESSMENT

DIRECTIONS: Use a separate sheet of paper when completing this questionnaire. Note the code before starting. When you have completed the questionnaire check your responses with the answer key at the end. If you get 18 out of the 20 responses correct then proceed to Mini-Module III, Reading or Math Tutor, page 23 ; if not, complete the activities in this module.

CODE: 1 = Always; 2 = Sometimes; 3 = Never.

QUESTION	1	2	3
1. Is it necessary to have some pre-established goals for each student during tutoring session?			
2. Is it advisable to have a quiet, secluded, attractive area in which to tutor?			
3. Is it always necessary to know something about the student being tutored when making plans to meet his individual needs?			
4. Is it advisable to encourage the student who is being tutored to work on tasks which are just beyond his performance level?			
5. Is it desirable to maintain a calm voice when reprimanding a student whom you are tutoring?			
6. Is it imperative that you keep accurate, up-to-date records of each tutoring session?			
7. In trying to establish rapport with a student is it helpful to be friendly, interested in his hobbies, encouraging, and considerate?			
8. Will it help the teacher and student if you are familiar with the materials you will be using?			
9. Does your attitude toward learning influence the student's attitude toward learning?			
10. Should you try to have the student with whom you are working leave each tutoring session with a feeling of success?			

QUESTION	1	2	3
11. Is it important to make the learning activities interesting and relevant?			
12. Should the tutoring session be scheduled to meet the student's learning style and interests?			
13. Would it be helpful to know something about the student's hobbies, family, friends and academic strengths and weaknesses?			
14. Is using audio-visual equipment to demonstrate a skill more helpful and practical than using a book or chalkboard?			
15. Is it possible to determine when a student no longer needs your assistance?			
16. Is it helpful to use a variety of materials and activities to help the student reinforce a newly acquired skill?			
17. Can a tutor be effective with a particular student if he disagrees with the approach the student's teacher is using in the classroom?			
18. Is it advisable to begin the first tutoring session with a test to see what the student doesn't know?			
19 Will the student benefit from the tutoring session if he is having <u>fun</u> learning?			
20 Should the student be rewarded in some way for the tasks he completes successfully?			

ANSWER KEY: 1=A; 2=S; 3=A; 4=S; 5=A; 6=A; 7=S; 8=A; 9=S; 10=S; 11=A; 12=S; 13=A; 14=S; 15=A; 16=A; 17=N; 18=N; 19=A; 20=S.

MINI-MODULE II--Tutoring Tips

ENABLING OBJECTIVE #1

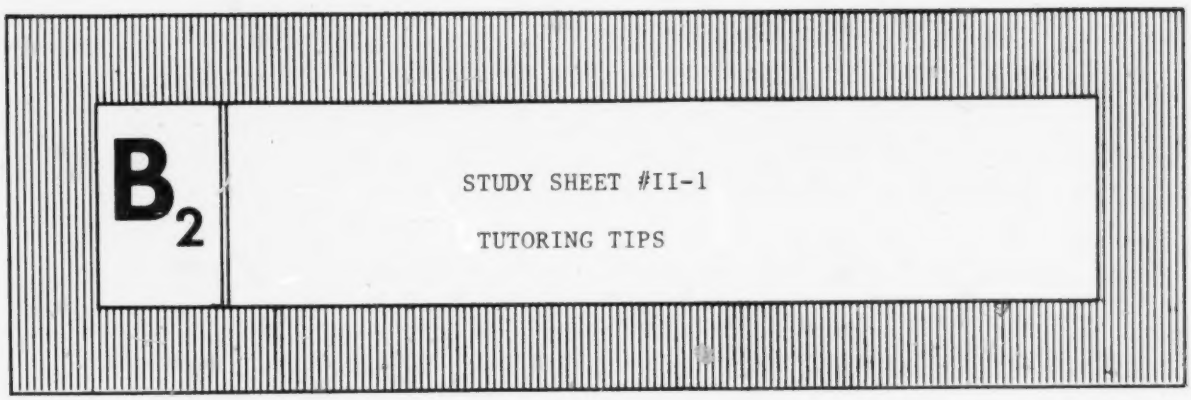
> After reviewing and discussing Study Sheet #II-1, Tutoring Tips, with the VRP, the volunteer will be able to list 12 tutoring tips he will use when critiquing his own tutoring sessions.

ACTIVITIES FOR OBJECTIVE 1:

1. Review Study Sheet #II-1, Tutoring Tips, page 19 and then discuss with the VRP your attitudes regarding the information.

2. On a 5" x 8" index card, list 12 tutoring tips which you could refer to when you are evaluating your own performance during a tutoring session.

3. Please turn now to Enabling Objective #2, page 21 .



The human dimension is the most important contribution a volunteer can offer a student who is having a learning problem. To assure maximum success in each tutoring session it is advisable to follow these guidelines:

1. Be sure before each tutoring session, you understand the goals of the program and the specific objectives involved.

2. Determine what your own attitudes towards school and children are and be sure not to allow them to influence your behavior during a tutoring session.

3. Try to be informed about home background of each student with whom you work.

4. Learn as much as possible about the student's interests, strengths and weaknesses, and then plan appropriate activities.

5. Conference with the student's teacher before and after each tutoring session in order to determine appropriate objectives, activities, and assessment tools for the students involved.

6. Observe the student in a routine classroom program in order that you might better understand his social and emotional behavior patterns.

7. Give the student you undivided attention while you are tutoring him. Converse frequently with the student.

8. Listen to the student! Give him a chance to think and to talk.

9. Establish rapport with the student by showing him you genuinely care about him, you trust him, and you respect him.

10. Encourage the student to work up to his ability. Do not frustrate him by pressuring him to do work beyond his capabilities.

11. Provide the student with a variety of activities to reinforce his learnings. The time allocation of each tutoring session must be determined by THE CHILD and his involvement and interest in the activities.

12. Be prepared for each session. Set an example of promptness, courtesy and respect for self and others.

13. Use correct language patterns and word pronunciation at all times. Remember, a calm, well-modulated voice commands attention and respect.

14. Offer the student an attractive and interesting area in which to work.

15. Send the student away from each tutoring session feeling successful!

16. Keep accurate and up-to-date tutoring records.

17. Keep a file of activities which you can refer to when working with students who have a similar need.

18. Be familiar with all the classroom and school's materials and equipment in your tutoring subject.

19. Frequently discuss with the teacher attendance patterns, attitudes, and performance level of the students with whom you work. Conference with a parent only if a teacher requests it and is present at the conference.

20. Make sure the student understands the purpose of the tutoring session and how to complete any follow-up activity you might assign to him.

MINI-MODULE II--Tutoring Tips

ENABLING OBJECTIVE #2

> The volunteer will tape record 15 minutes of his own 30-minute tutoring session and he will then critique the tape by using his own reference card of "tutoring tips".

ACTIVITIES FOR OBJECTIVE 2:

1. With the help of a classroom teacher select: (1) the student whom you will be tutoring; (2) the purpose of the tutoring session; (3) the place in which you will work; and (4) the materials and equipment you will need to accomplish the task.

2. Tape record the first 15 minutes of a 30-minute tutoring session.

3. Play back the tape and evaluate your performance using your own "tutoring tips" index card guide. On a separate sheet of paper answer the questions on Worksheet #II-1, Tutoring Critique, page 22 .

4. Complete the Pre-Assessment instrument again. If you are unable to get 18 out of 20 items correct, discuss this mini-module with the VRP.

B_2

WORKSHEET #II-1

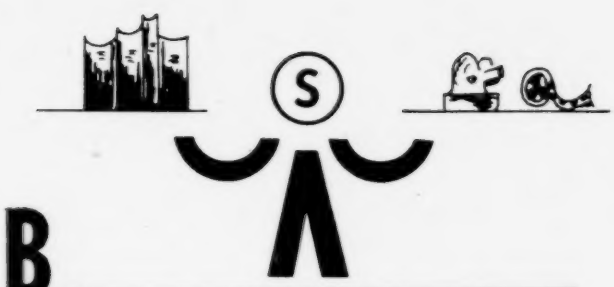
TUTORING CRITIQUE

DIRECTIONS: Play back the tape recording of your tutoring session and evaluate your performance by answering the following questions on a separate sheet of paper. If your total score is 15+ points then you have probably had a successful tutoring session. If your answers tally less than 15 points then review this mini-module again. The more aware you are of your own performance during each tutoring session, the more successful you will be.

QUESTION	ANSWER YES	NO	COMMENT
1. Do you know why it is important to assess your behavior? Why?			
2. Did you follow tutoring guidelines you previously outlined on index cards? List the 10 tutoring tips.			
3. Was the student you tutored motivated to return for another tutoring session? How do you know?			
4. Were you satisfied with the tutoring session? Why?			

VALUE TO ANSWERS:

Question	Yes	No	Comment
1.	2 pts.	0 pts.	2 pts.
2.	3 pts.	0 pts.	3 pts.
3.	1 pt.	0 pts.	2 pts.
4.	4 pts.	0 pts.	3 pts.



B2

MINI-MODULE III:

READING OR MATH
TUTOR?

MINI-MODULE III: Reading or Math Tutor?

PROSPECTUS

The terminal objective for this mini-module is:

> The volunteer will be able to successfully perform his duties as defined by the job descriptions for a language arts tutor and/or a mathematics tutor in the Dade County Public Schools, Handbook for Volunteers.

The activities of this mini-module will acquaint you with some of the language arts and mathematics skills on various grade levels. After completing this module you will have a compilation of appropriate tutoring activities which you can use immediately. You will also have a frame of reference from which you can develop more relevant and timely learning activities of tutoring.

MINI-MODULE III: Reading or Math Tutor?

PRE-ASSESSMENT

Section A--Reading Tutor

DIRECTIONS: If you are interested in being an elementary reading or language arts tutor complete Section A of this mini-module. If you prefer to work in the area of elementary mathematics complete Section B of the Pre-Assessment, page 43 . Answer all questions on a separate sheet of paper.

1. Can you list 10 skills which most primary grade students (kindergarten through 2nd grade) should be able to master?

   a. Yes, then go on to question 2.

   b. No, then go on to Enabling Objective #III-1A, page 25 .

2. Can you list 10 specific reading or language arts skills which most intermediate grade level (4th through 6th grades) students should be able to master?

   a. Yes, then go on to question 3.

   b. No, then go on to Enabling Objective #III-2A, page 33 .

3. Can you design 3 teaching games which might help a primary grade student who is having trouble differentiating between the letters "b" and "d", "m" and "n", and "w" and "u"?

   a. Yes, then go on to question 4.

   b. No, then go on to Enabling Objective #III-3A, page 38 .

4. Given 3 teaching games which you have made, Scrabble, Bingo and Ring Toss, can you identify 2 language arts objectives for each game? Can you prepare one follow-up activity for each game for elementary grade students?

   a. Yes, then you have satisfactorily completed Mini-Module III, Section A. If you want to be a math tutor or if you are interested in this subject area, turn to the Pre-Assessment, Section B, Mini-Module III, page 43 .

   b. No, then go on to Enabling Objective #III-4A, of this mini-module, page 49 .

MINI-MODULE III: Reading or Math Tutor?

ENABLING OBJECTIVE #III-1A

Section A--Reading Tutor

> After the volunteer has studied Study Sheet III--#1A and #2A and has observed students at work in a classroom, he will be able to identify ten primary grade language arts or reading skills.

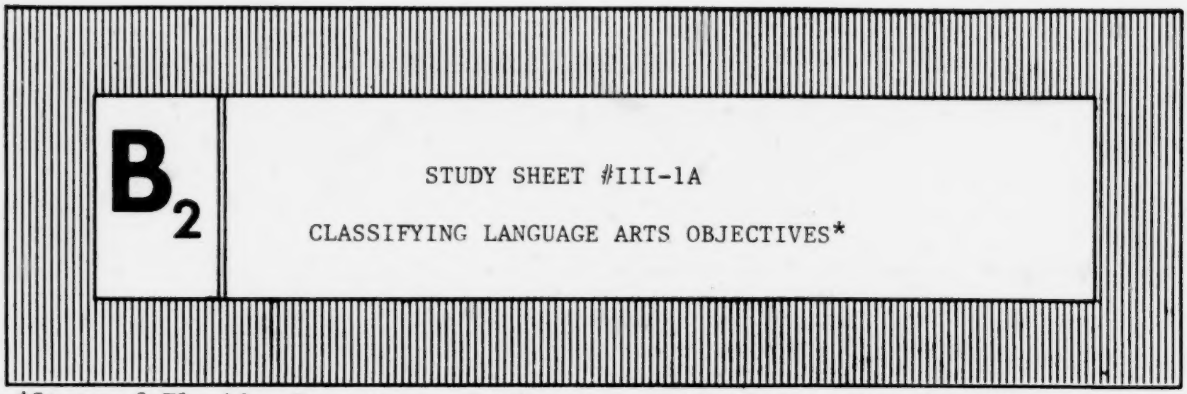
ACTIVITIES FOR OBJECTIVE #1A:

1. Review Study Sheet #III-1A Classifying Language Arts Objectives, page 26, and Study Sheet #III-2A Objectives for Reading for primary grade students. These objectives are consistent with Florida accreditation standards. Select 2 objectives and ask the VRP to discuss with you the activities necessary to accomplish the objectives.

2. Using Worksheet #III-1A Observations, page 28, as a guide, observe three students during their reading period. Discuss your observations with the teacher in whose class you observed.

3. Develop a resource file of activities which you can use with different students throughout the year. Begin this resource file by identifying 10 different language arts skills. Put each one of these skills on a separate 5" x 8" index card. Below each stated skill, describe one activity (including materials, equipment and estimated time involved) which can be used to help the student master the skill.

4. Browse through the teacher's manual of a reading or language arts textbook series. List 6 skills which the manual emphasizes. Then compare these skills to the ones that are given on Study Sheet #III-1A and #III-2A, pages 26 & 29.



*State of Florida, Department of Education, Tallahassee, Florida, 1972.

RATIONALE

1. Communication skills in general, and reading in particular, are the basis for learning new knowledge and progressing in all areas;

2. A major purpose of the public school system is to assist all students in acquiring a working knowledge of reading, writing, speaking and arithmetic during the elementary school years.

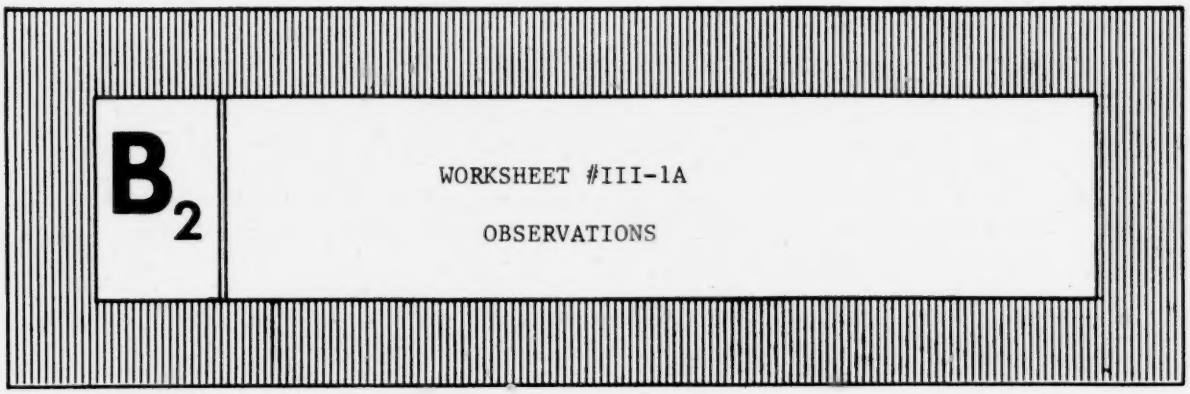
   The skills are divided into four groups:

   1. Group 1: Prerequisite to Reading. All students shall acquire language skills basic to learning to read, including the ability to listen. They shall acquire skills which most students usually have not developed previous to entering school, including visual discrimination of letters and word forms; auditory discrimination of letters and work forms; auditory discrimination of speech sounds within words; association of printed letters with the sounds they represent; and the blending of a number of letter sounds to arrive at the pronunciation of words in one's oral usage vocabulary.

   2. Group 2: Mechanics of Reading. All students shall develop mechanical and comprehension skills simultaneously. Instruction must begin with the most simple skills and end with the most complex. Students shall develop an increasing sight vocabulary and learn to identify unfamiliar words through phonics and use of context clues so that they may read with understanding.

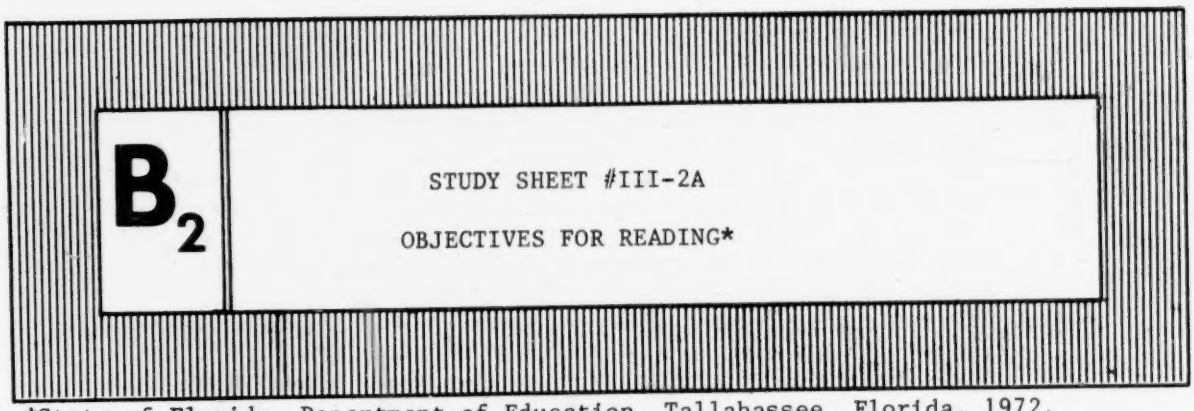
   3. Group 3: Reading Comprehension. All students shall acquire an extensive and accurate vocabulary and learn connotative and denotative meanings of the words, structural analysis, synonyms and heteronyms. They shall develop the ability to recall details, find answers to specific questions, and understand main ideas and sequences of events from selected readings. They shall learn to interpret what they read by recognizing cause and effect and by making inferences. They shall also learn to punctuate and capitalize.

4. Group 4: Utilization of Reading Skills. All students shall learn to read for purposes of obtaining information and for pleasure and shall develop different rates of reading for different materials. They shall develop the ability to locate needed reading material, which requires the knowledge of alphabetical order, use of index, tables of contents, dictionary, encyclopedia, library card files and skimming. They shall learn to organize what they read by summarizing and outlining.



DIRECTIONS: Become familiar with all the categories on this matrix. Have a teacher identify the three students whom you will observe. Then fill in each square in the matrix. Discuss your observations with the classroom teacher.

	Student "A"	Student "B"	Student "C"
Objective of Task			
Type of Pre or Post Assessment			
Description of Activity			
Equipment/ Material used			
Degree of Mastery of Specified Task			
Social Behavior Patterns			



*State of Florida, Department of Education, Tallahassee, Florida, 1972.

Reading Objectives for Primary Grades (K through 2nd grade)

Group 1: Prerequisite to Reading

1. Given an oral direction, the learner will follow it.
2. Given the name of a body part, the learner will locate it on himself, another person, a doll, or a picture.
3. Given a set of items or pictures, the learner will identify those that are identical.
4. The learner will match words with illustrations.
5. Given a word or phrase orally, the learner will select from among several pictures the one that represents the word or phrase.
6. The learner will identify numerals.
7. Shown part of an item, or a picture of part of an item, the learner will identify the item.
8. After hearing descriptive words, phrases, or sentences, the learner will select from a series of pictures the event or object that was described.
9. Given two simple sentences which are identical except for one word, the learner will identify the different word.
10. The learner will identify pairs of words that rhyme and pairs of words that do not rhyme.
11. The learner will identify figures that are identical, though one is rotated.
12. The learner will identify right and left body parts.
13. Given orally the function of a familiar object, the learner will identify the object.
14. After listening to a selection, the learner will name its main characters.
15. Given a set of upper or lower-case letters, the learner will identify the letters that are named.
16. Given an upper or lower-case letter, the learner will identify its corresponding lower or upper-case form.
17. After listening to a story, the learner will identify the main events in the proper order.
18. The learner will identify words, pictures, or objects representing similar concepts.

Group 1: Prerequisite to Reading (Continued)

19. After listening to a selection, the learner will identify the main ideas.
20. The learner will identify words written in manuscript that begin with a designated letter.
21. The learner will identify pairs of words beginning with the same consonant sound and those beginning with different consonant sounds.
22. After hearing a story, poem or passage in which an emotion is depicted, the learner will describe the emotion.
23. The learner will identify from among several items those that belong to a given class or set.
24. The learner will identify from among several items those that do not belong to a given class or set.
25. The learner will identify words, pictures, or objects representing opposite concepts.
26. The learner will identify from given words or pictures those having the same beginning consonant sound.
27. Given words or pictures of objects, all but one ending with the same consonant sound, the learner will identify the one having a different final sound.
28. The learner will identify pairs of words ending with the same consonant sound and those ending with different consonant sounds.
29. Given a rhyming couplet with an incomplete last line and a group of words or pictures of objects, the learner will select the words which best complete the rhyme.
30. The learner will identify pairs of words containing the same medial consonant sound and those containing different medial consonant sounds.
31. The learner will identify from given words or pictures of objects those having the same medial consonant sound.
32. The learner will classify several items into groups according to his own or a given rationale.
33. The learner will identify from a set of words those containing a given consonant sound in a specified position.
34. The learner will differentiate between phrases and complete sentences.

Group 2: Mechanics of Reading

1. The learner will identify vowels in the alphabet or in words.
2. The learner will identify consonants in the alphabet or in words.
3. Given known words or phrases, the learner will locate them in a given reading selection.
4. Given a written consonant and several pictures of objects, the learner will identify the object whose name begins with the given consonant.
5. The learner will identify from a set of written words those beginning with the same single consonant sound as the given word.
6. Given a new written word that is in his listening and speaking vocabulary the learner will identify an illustration or object related to that word.

Group 2: Mechanics of Reading (Continued)

7. Given a written consonant and several pictures of objects, the learner will identify the object whose name ends with the given consonant.
8. The learner will identify from a set of written words those ending with the same single consonant sound as a given word.
9. The learner will identify the simple words making up a compound word.
10. Given illustrations and sets of descriptive written words, phrases or sentences, the learner will select the word, phrase, or sentence which best describes each illustration.
11. The learner will identify from a set of written words those containing the same single medial consonant sound as a given word.
12. Given a word orally, or a picture of an object, the learner will identify its medial single consonant.
13. Given a written consonant and several pictures of objects, the learner will identify the object whose name contains the given consonant in the medial position.
14. Given an oral word and a written consonant (single, blend, or digraph) from that word, the learner will identify whether the consonant is in the initial, medial, or final position.
15. Given words with similar denotation, the learner will identify the differences in connotation or nuance.
16. The learner will choose from a list of words with similar meanings but with different connotations or nuances the correct word to complete a given sentence.

Group 3: Reading Comprehension

1. The learner will identify the beginning of each sentence in a given passage.
2. The learner will identify the ending of each sentence in a given passage.
3. After reading a selection, the learner will answer specific questions of find detailed information.
4. Given class members, the learner will identify additional members in the same class.
5. The learner will identify related words or statements.
6. Given a fantasy, the learner will identify events that could not happen in real life.
7. Given a passage in which an emotion is conveyed, the learner will identify the emotion described in the passage.
8. Given class members (words or statements), the learner will identify class concepts.
9. Given class concepts, the learner will identify members belonging to each class.
10. The learner will arrange a scrambled set of words or sentences in logical order.
11. Given an incomplete sentence, the learner will complete it by identifying a word or phrase suitable to the context of the sentence.

Group 3: Reading Comprehension (Continued)

12. Given class members, the learner will identify classes to which they belong.
13. The learner will classify data according to an identifiable rationale or system.
14. The learner will answer questions about a given hypothetical situation which requires them to infer information not literally or directly stated in the situation as given.

Group 4: Utilization of Reading Skills

1. The learner will arrange given words in alphabetical order.
2. The learner will correctly follow written instructions for tasks.

MINI-MODULE III--Reading or Math Tutor?

ENABLING OBJECTIVE #III-2A

Section A--Reading Tutor

> The volunteer will be able to identify 10 intermediate level (4th through 6th grade) language arts skills after studying Study Sheet #III-3A and completing Worksheet #III-2A.

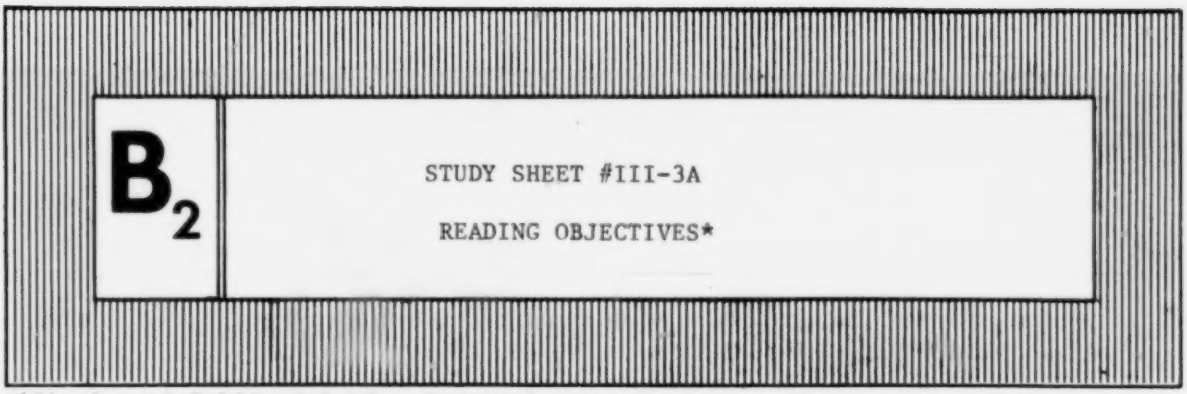
ACTIVITIES FOR OBJECTIVES #3A:

1. Review Study Sheet #III-3A. Identify a child who is between the ages of 8 and 11. Does he need help in mastering any of the skills stated on Study Sheet, #III-3A? Design 2 activities relevant to any 3 identified skills?

2. Observe a reading session on an intermediate grade level. Name 3 skills on which the teacher was focusing. Were these same 3 skills emphasized in the primary classes?

3. Study the photographs on Worksheet #III-2A, page 36 . Identify the language arts objective illustrated in each photograph.

4. Go back to question 2 of the Pre-Assessment, Section A, page 24 .



*Cincinnati Public Schools, Operations One-to-One Handbook for Tutors.

The following is a summary of anticipated outcomes for students in the area of reading. These should be used not as rigid standards but rather as a means of identifying the pupil's present achievement and planning next steps.

Grade Four

Reads fourth grade material with understanding and interpretation

Makes use of context clues for literal definition

Uses consonant blends, vowel sounds, syllables, prefixes, and suffixes in attacking new words

Uses dictionary to discover word meanings; uses dictionary symbols as aids in pronunciation

Recognizes simple root words; begins to use syllabication

Can select main thought of a paragraph and note details

Can follow written directions

Makes simple evaluation of materials

Uses informational books to solve problems

Can use table of contents and index

Makes use of simple graphs and map symbols

Begins simple outlining with guidance

Becomes aware of story structure and plot

Can read fluently a prepared oral selection

Has expanded reading interests

Evaluates his reading progress with teacher's aid

Grade Five

Reads fifth-grade material with understanding and interpretation

Develops proficiency in use of word-attack skills

Uses syllabication and accent marks as aids to pronunciation

Understands multiple meanings of words; notes synonyms, antonyms, and homonyms

Selects details to support generalization about the selection

Begins to evaluate the source of reading material

Uses several reference materials in problem solving and acquires skill in simple organization

Selects main ideas in outlining

Develops proficiency in use of index and table of contents; learns to cross reference

Interprets attitudes and motives of character in story and relates to life situations

Shows discrimination in selecting reading material and is developing wide interest in personal reading

Evaluates progress in reading with greater independence

Grade Six

Reads sixth-grade material with understanding and interpretation

Can recognize most words independently through mastery of word-attack skills; checks words not in oral vocabulary with dictionary meaning

Understands diacritical markings

Understands relation of supporting details to the main thought of a selection

Can organize and evaluate material from several references

Can form opinions and make judgments on carefully weighed evidence

Can make and apply graphic aids to illustrate material; interprets maps independently

Can outline with major and subordinate headings

Recognizes author's purpose

Interprets figurative language

Satisfies interests and needs through extended personal reading

Evaluates his own progress in reading

B_2

WORKSHEET #III-2A

STUDENT COUNCIL ELECTION -
WEST LABORATORY SCHOOL 1971

DIRECTIONS: Study each photograph carefully. On a separate sheet of paper identify one language arts objective illustrated in each picture. Discuss your answers with the VRP.

1.

2.

3.

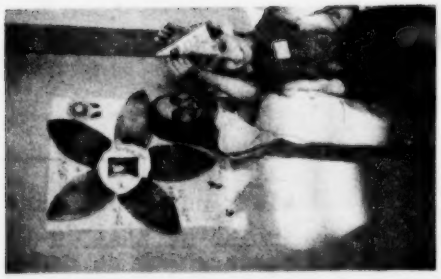
4.

5.

6.

7.

8.



9.

10.

11.

12.

MINI-MODULE III--Reading or Math Tutor?

ENABLING OBJECTIVE #3A

Section A--Reading Tutor

> After using and evaluating three teaching games from Worksheet #III-3A the volunteer will make 3 teaching games which he can use to help primary grade students differentiate between certain letters.

ACTIVITIES FOR OBJECTIVE #3-A:

1. Observe two primary grade students who are having difficulty distinguishing between certain letters, or who are possibly seeing letters or words in reverse or upside down. Discuss the students' problems with their teacher. What specific teaching strategies and activities the teacher is using to help the students in their problems?

2. During one of your tutoring sessions, have a certain student who is having difficulty distinguishing between certain letters, trace these letters on the blackboard, in a sand box, on sand paper, and on felt. Have the student build words on the floor using wooden, felt, or paper letters cut out in the shape of the letters.

3. Review the games on Worksheet #III-3A, page 39 . Which games are appropriate for teaching letter recognition and recall to primary grade students? Why?

4. Make for your own use with students, any three teaching games from Worksheet #III-3A, page 39 , these will become your teaching tools during a tutoring session. Look through some professional magazines and books (example, The Slow Learner, Newell Kephart) and conference with a kindergarten or primary teacher who is able to give you some insight into the use of these activities for perceptual-motor development. Share your original games with this teacher.

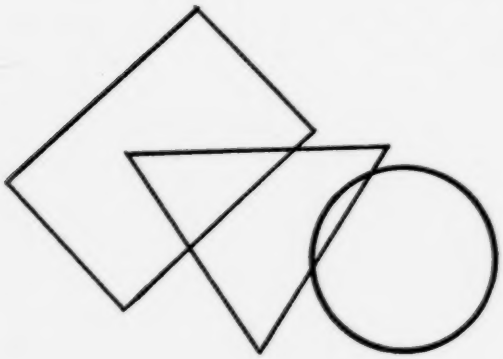
B_2

WORKSHEET #III-3A

GAMES

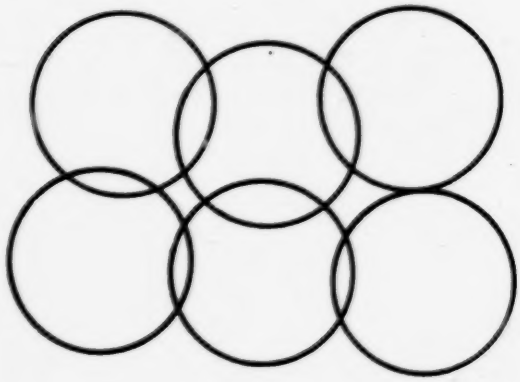
1. SKILL: Visual Discrimination

   DIRECTIONS: Using a series of design cards, have the children match the transparent with the opaque ones on the design cards.



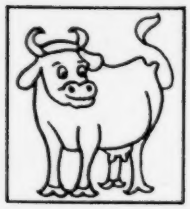
2. SKILL: Hand-Eye Coordination; Visual Perception

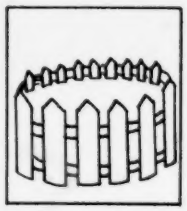
   DIRECTIONS: Using colored pencil have the children trace the shapes.



3. SKILL: Initial Sounds

DIRECTIONS: Have the children put all the pictures which begin with the same sound in the same envelop. Make many picture cards using a variety of initial sounds.





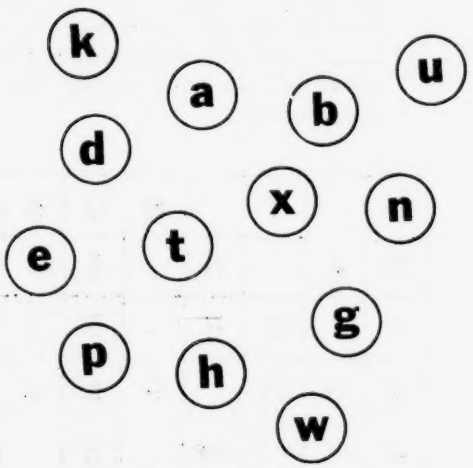
4. SKILL: Initial Word Blends; Perceptual Motor Development

DIRECTIONS: Match the blends with the word that contains the initial blends. Use a ruler to connect blends with words.

cr	tree
ch	shoe
tr	crib
sh	chair
br	clean
dr	sled
cl	broom
sl	drop

5. SKILL: Letter Recognition and Recall

DIRECTIONS: Put large discs with various letters on them on the floor. Have the children hop or skip to the letters called.



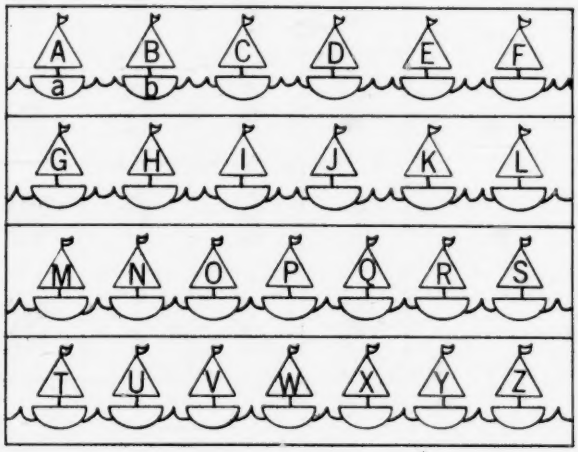
6. SKILL: Letter Recognition and Recall

DIRECTIONS: Play Alphabet Bingo with a small group of children. Call out the letters. The first one to get 4 letters in a row, wins. Duplicate game using small letters.

D	H	P	O
N	A	G	F
L	E	C	W
B	J	I	M

7. SKILL: Visual Discrimination and Recognition of Upper and Lower Case Letters

DIRECTIONS: (a) Look for the felt letter which matches the boat. Place letter in the sail. Then (b) Look for the lower case felt letter which matehes the boat. Place letter in the sail.



8. SKILL: Recognition of Upper and Lower Case Letters

DIRECTIONS: This game is to be played with a small group of children. The "caller" is to call out a letter and the child is to place the lower case letter in the appropriate box. The first one to complete a full vertical or horizontal row is the winner.

E		T		H	U	S	
W	A		G		F		J
X		Z	B		R	I	P
B	K	N		O	D	D	W
C			M		U		
	P	Q		L	V	V	Y

MINI-MODULE III--Reading or Math Tutor?

PRE-ASSESSMENT

Section B--Math Tutor

DIRECTIONS: If you are interested in the subject, mathematics, or you are going to be working as a math tutor, complete this section. Answer all questions on a separate sheet of paper.

1. Can you identify 10 primary level (K-3rd grade) math objectives?

   a. Yes, then go on to question 2.

   b. No, then go on to Enabling Objective #1B.

2. Can you identify 10 intermediate level (4th-6th grades) math objectives?

   a. Yes, then go on to question 3.

   b. No, then go on to Enabling Objective #2B.

3. Can you design 6 original math games which primary grade (K-3rd grade) students could use to learn specific math concepts?

   a. Yes, then go on to question 4.

   b. No, then go on to Enabling Objective #3B.

4. Can you design a math activity for intermediate level students who are being taught percentage of a number and ratio, using the classified food section of the newspaper?

   a. Yes, then you have satisfactorily completed Mini-Module III, Section B. Good luck tutoring.

   b. No, then go on to Enabling Objective #4B of this Mini-Module, page 66 .

MINI-MODULE III--Reading or Math Tutor?

ENABLING OBJECTIVE #1B

Section B--Math Tutor

> After reading The Laboratory Approach to Mathematics, and/or reviewing Study Sheet #III-1B, Primary Math Objectives, the tutor will be able to identify 10 primary level math objectives.

ACTIVITIES FOR OBJECTIVE #1B:

1. Observe a primary level (K-3rd grade) class during their math lesson. What activities did you see? What types of materials were the students using? How many students were exploring number concepts through manipulation of materials?

2. Read the book The Laboratory Approach to Mathematics, Kidd, Meyers, Cilley, Chicago: Science Research Associates, 1970.

3. Review Study Sheet #III-1B, Primary Math Objectives, pages 45 , with another tutor volunteer.

4. Ask a primary level teacher to identify the student whom you will be tutoring for at least one month. Discuss the student with the teacher, then using Study Sheet #III-1B, Primary Math Objectives, pages 45 , as a guide observe the student for three days.

5. Go back to question #1B of the Pre-Assessment, Section B, page 43 .

B_2

STUDY SHEET #III-1B

PRIMARY MATH OBJECTIVES

DIRECTIONS: Review carefully the mathematics objective for primary grade (Kindergarten through 3rd grade) students. Then observe one student on three different days, noting which objectives he has mastered (□), he is still working on (△), or he is not working on (0) because the skill is too advanced. If you are unable to observe the student's involvement with certain skills, ask the teacher at which level he is working and record appropriate symbol in Colunm.

Code: □ = has accomplished this skill

△ = still working on this skill

0 = too advanced skill

The student:	Observation Sessions 1	2	3
I. NUMBERS			
A. Whole Numbers			
1. Understands numerals as names for numbers			
2. Uses sets to develop concepts			
3. Understands cardinal numbers			
4. Recognizes numerals 1 - 10			
5. Counts by ones through 10			
6. Counts by ones through 100			
7. Understands ordinal numbers, first - fifth			
8. Understands ordinal numbers, first - tenth			

		Observation Sessions		
		1	2	3
	9. Understands the concept of zero			
	10. Demonstrates knowledge of place-value			
	11. Can compare numerals: $>$, $<$, = , $\neq$			
	12. Can use parentheses to indicate groupings in equations			
	13 Can write numerals, 0-5; 0-10			
B.	Fractional Numbers			
	1. Can use fractional names for fractional numbers			
	2. Understands 1/2, one-half			
	3. Understands 1/3, one-third			
	4. Understands 1/4, one-fourth			
	5. Understands subsets			
II.	COMPUTATIONS			
	1. Computes combinations through sum of 5			
	2. Computes combinations through sume of 19			
	3. Can identify Set Unions			
	4. Can identify Subsets			
	5. Can skip count by two's			
	6. Can skip count by five's			
	7. Can count by ten's			
	8. Can add two digit numerals			
	9. Understands zero as a missing Addend			
	10. Can "carry" in two places			
	11. Can compute "one-less" patterns			
	12. Can compute subtraction combination through 5			

	Observation Sessions 1	2	3
13. Can compute subtraction combinations through 19			
14. Can use equations to find missing addends			
15. Can subtract 0 from a number			
16. Can subtract a number from itself			
17. Can compute 2 digit subtraction problems			
III. GEOMETRY AND MEASUREMENT			
1. Understands points and lines			
2. Recognizes geometric shapes			
3. Can compare shapes; symbol, vocabulary			
4. Can compare sizes; symbol, vocabulary			
5. Can reproduce patterns			
6. Understands the value of a penny, nickel, dime			
7. Understands the value of a quarter, half dollar			
8. Understands the relationship between different coins having the same value			
9. Is able to understand the purchasing power of money; making change			
10. Is able to tell time on the hour			
11. Is able to tell time on the half hour			
12. Is able to tell time on the quarter hour			
13. Is able to write the time			
14. Understands 60 minutes to an hour			
15. Understands the terms "earlier", "later"			

	Observation Sessions 1	2	3
16. Understands measure of time: clock calendar, day, week, month, year			
17. Understands linear measure; foot, inch, yard			
18. Understands linear measure relationships			
19. Understands liquid measure: pint, quart, cup, gallon			
20. Can express, through writing, linear measure, ', ", yd.			
21. Can express, through writing, liquid measure			
IV. APPLICATIONS			
1. Can match or do one-to-one correspondence			
2. Can compare sizes, shapes, patterns			
3. Can answer story problems			
4. Can use relation symbols; $>, <, =, \neq$			
5. Can write mathematical sentences			
6. Can utilize vocabulary; addend, sum, minuend, subtrahend			
7. Demonstrates understanding of place value			
8. Understands and can do simple equations			
9. Can interpret simple graphs			
10. Can use liquid measure to solve problems			
11. Can use linear measure to solve problems			

MINI-MODULE III--Reading or Math Tutor?

ENABLING OBJECTIVE #4A

Section A--Reading Tutor

> After observing primary or intermediate grade students playing Scrabble, Bingo, and Ring Toss or games with similar objectives, the volunteer tutor will be able to identify 2 language arts objectives for each game and will be able to make one follow-up activity for each game.

ACTIVITIES FOR OBJECTIVE #4A:

1. Are you familiar with the commercial games Scrabble, Bingo, and Ring Toss? Review the rules for these games and over the next week observe 2 or more students playing each game.

2. What is the value of Scrabble, Bingo, Ring Toss or games with similar objectives, in each classroom (Kindergarten through 6th grade) or in a media center? Discuss your answer with the Volunteer Resource Person.

3. Using these commercial games Scrabble, Bingo, and Ring Toss as models, design a game-type activity to reach and reinforce any two language arts objectives. Play the games you designed with some elementary students.

4. Go back to question #4A of the Pre-Assessment, Section A, page 24 .

MINI-MODULE III-Reading or Math Tutor?

ENABLING OBJECTIVE #2B

Section B--Math Tutor

After completing Work Sheet #III-1B and Study Sheet #III-2B, the volunteer will be able to identify 10 specific math objectives which students in the intermediate level (4, 5, or 6 grades) should be able to master.

ACTIVITIES FOR OBJECTIVE #2B

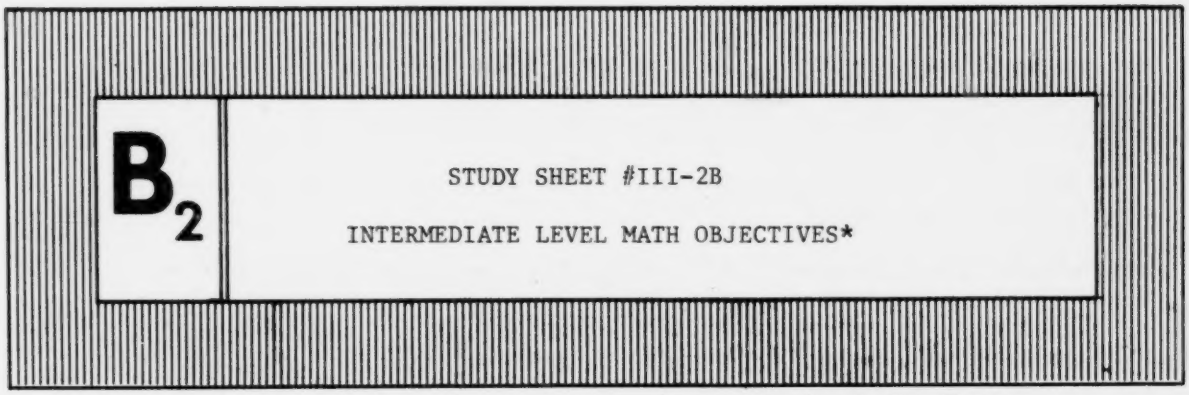
1. Browse through the Table of Contents in a 4th, 5th, or 6th grade math textbook. Select one of the general areas of instruction from the textbook, and observe students being instructed in this general area. The VRP or the principal should be able to assist you in arranging your observation schedule.

2. Review Study Sheet #III-2B, Intermediate Level Math Objectives, page 51, with another tutor. Ask the VRP which math objectives he is planning to teach for the next few weeks. Discuss with the VRP the pre-assessment, activities and assessment items he is planning to use to meet the objectives.

3. Discuss with a physical education instructor the mathematical concepts he emphasizes when planning relay races among students.

4. Using the questionnaire on Work Sheet #III-1B, Survey, page 54 , poll 15 students from the 4th, 5th, and/or 6th grades. Compile the responses.

5. Turn to question #2B of the Pre-Assessment, Section B, page 43 .



*Cincinnati Public Schools, Operation One-to-One Handbook for Tutors.

Grade Four

Understands place value; reads and writes 6-place numbers, including money written decimally; Roman numerals to C

Understands zero as a number and a place holder

Understands basic concepts and interrelationships of addition, subtraction, multiplication, and division

Uses addition, subtraction, multiplication, and division facts automatically

Adds and subtracts 5-place numbers with carrying and changing

Multiplies a 4-place number by a 2 or 3-place multiplier

Divides a 4-place dividend by a 1-place divisor, with carrying and remainders

Understands and uses unit fractions and fractional equivalents; is able to make comparisons using fractions; adds and subtracts fractions with like denominators

Understands common measures and uses standard measuring tools; understands approximations; is able to change a unit of measure to a larger or smaller unit

Understands concept of line, parallel lines, right angle, simple closed curves; identifies plane figures

Estimates, computes, compares answers with estimate, and checks computations in 1-step and 2-step problems

Uses sentences to state the structure of a problem

Has increased his mathematical vocabulary

Has mastered basic multiplication facts to 5 x 9; explores through 9 x 9; multiplies numbers with 3-place numerals by numbers with 1-place numerals, with and without carrying.

Has mastered basic division facts to 45 ÷ 5 and explored those through 81 ÷ 9; divides numbers with 3-place numerals by numbers with a 1-figure divisor; divides with and without carrying and remainder

Uses 1/2, 1/3, 1/4, 1/5 of a unit; 1/2, 1/4 of a group; understands and uses simple measurements

Understands how to estimate and solve simple problems; poses problems based on classroom living

Has acquired a meaningful mathematical vocabulary.

Grade Five

Understands the decimal nature of the number system; reads and writes numbers through millions; round whole numbers to thousands; Roman numerals to M

Understands the interrelationships among the four fundamental operations

Adds and subtracts accurately 5-digit numbers, including money written decimally

Multiplies accurately with 3-place multipliers

Divides with 2-place divisor when the apparent quotient is incorrect

Adds, subtracts, and multiplies fractions with understanding

Understand relationship between common and decimal fractions; adds and subtracts decimal fractions written in tenths and hundredths

Applies laws of operations to denominate numbers

Can interpret scales; picture, bar, and line graphs

Computes with common measures; measures perimeters and areas of polygons

Estimates, computes, compares answers with estimates, and checks computations

Has grown in ability to compute mentally

Uses number sentence to show structure of a problem

Has increased his mathematical vocabulary

Grade Six

Reads and writes numbers through billions

Uses exponents in expressing numbers, when appropriate

Rounds numbers to nearest billion, nearest million, nearest whole number, and nearest tenth, hundredth, and thousandth

Uses whole numbers in the four fundamental operations with understanding, applying the mathematical laws

Shows increased ability to solve problems mentally

Understands the interrelationship between common and decimal fractions

Has developed formulas for finding perimeters and areas of plane polygons

Estimates measure and verifies estimates; uses the operations with denominate numbers

Can add, subtract, multiply, and divide common and decimal fractions with understanding and accuracy

Can compute the volume of rectangular solids

Uses graphs to express and interpret relationships

Has some knowledge of positive and negative numbers

Is able to find a per cent of a number, the ratio factor, and the other factor with understanding

Estimates, compares computation with estimate, and checks all computations

Has increased his mathematical vocabulary

B_2

WORKSHEET #III-1B

SURVEY

DIRECTIONS: Interview 15 students from the intermediate level grades (4th, 5th, and/or 6th). Record the students' responses on a separate sheet of paper. Compile the responses and then discuss your findings with the VRP.

Question:	Response:
1. Name 2 math objectives you have already mastered this year.	
2. Did you have difficulty mastering these objectives? Why?	
3. Which 2 math objectives did you have difficulty mastering last year?	
4. If you had the opportunity to have your own math tutor this year, in which of the mastered objectives would his help have been beneficial to you?	
5. Name one activity you feel would have helped other students master a specific math skill. To what skill are you referring?	

MINI-MODULE III-Reading or Math Tutor?

ENABLING OBJECTIVE #3B

Section B--Math

> Given a number of instructional math games, the volunteer will design 6 games and develop a resource file of teaching activities which will help him teach specific primary math objectives.

ACTIVITIES FOR ENABLING OBJECTIVE #3B

1. Study the math skills and original games on Study Sheet #III-3B, Games, pages 56 - 65 . Assemble 12 of the suggested games for tutoring. Place each game in a manilla envelope and mark appropriately. Easy identification of an activity is benefical to you and the student.

2. List 3 math skills which primary students should master. With another volunteer design and assemble 6 games which you could use to help students master the identified skills.

3. Return to question 3 of the Pre-Assessment, Section B, page 43 .

B_2

STUDY SHEET #III-3B

GAMES

DIRECTIONS: Make all games out of durable material. Store each game in a manilla envelope. Identify skill and directions to student as indicated with each game, on each envelope. All comments in the parentheses are for teacher's use only. When ever possible the activity should be self correcting. Answer sheets should be stored with activities. Make sure the child records his activity results so that you have a guide from which to plan activities.

1. SKILL: Compute combinations through the sum of 10

   DIRECTIONS: Match correct answer card to the addition problems. Check answers with attached answer sheet. (Can be used with other operations.)

ADD	+3
2	
6	
7	
5	
4	

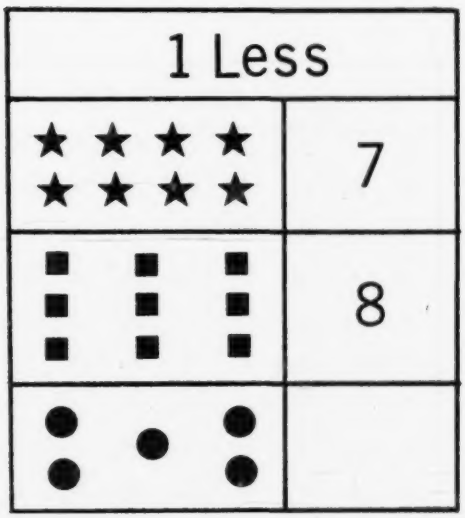
2. SKILL: Count by 2's, 5's, or 10's

   DIRECTIONS: Fill in missing felt numerals. Ask a classmate to check your answers.

2	–	6		–
6	8	–	–	14
8	–	10	–	–

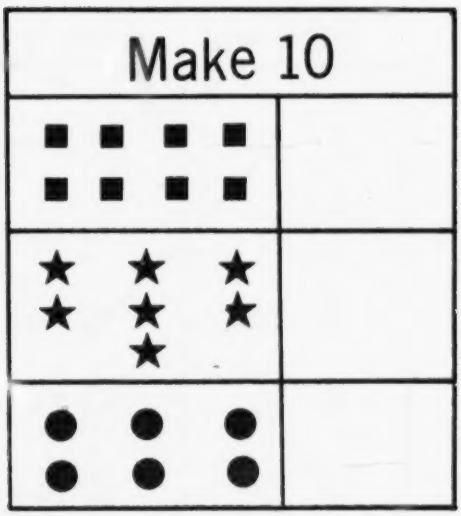
3. SKILL: Comparing Numerals

DIRECTIONS: Match or make "1 > " or "1 < " picture set. Check answers with attached answer card.



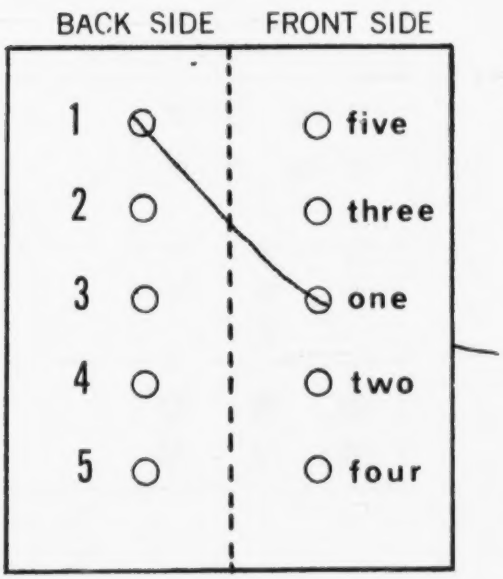
4. SKILL: Compute combinations to match specific set

DIRECTIONS: Add enough paper objects to make a set of 10. Turn card over to check answers.



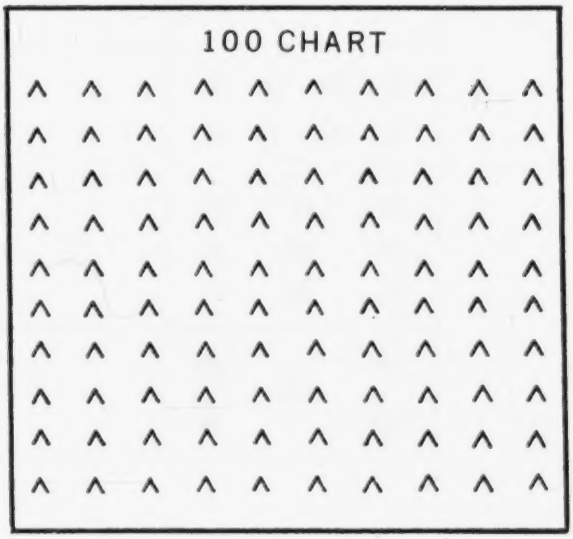
5. SKILL: Match numeral with written word for numeral

DIRECTIONS: Match numeral to correct number word by pulling the numeral string through the hole adjacent to the correct word. Turn card over to see if you are correct.



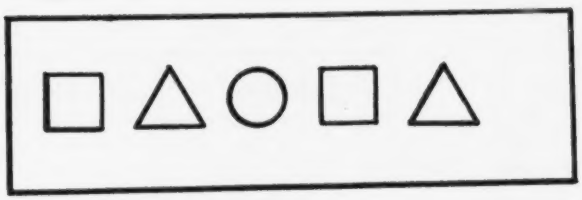
6. SKILL: Counting by ones

DIRECTIONS: Make a chart with slots for numerals 1-100. (Have numerals cut out.) Put numerals in slots in sequence. Check completed chart with attached 100 Chart.



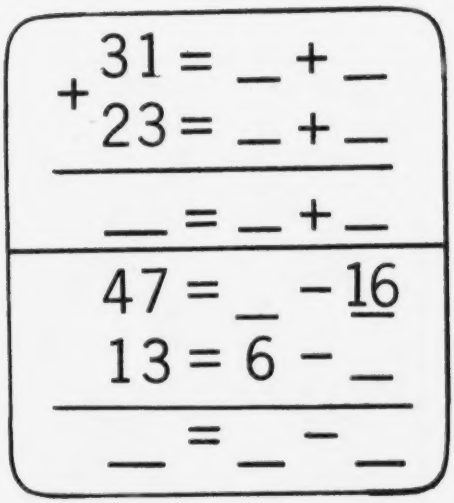
7. SKILL: Sequencing

DIRECTIONS: Continue pattern on card using all available shapes. Ask another classmate to check your work.



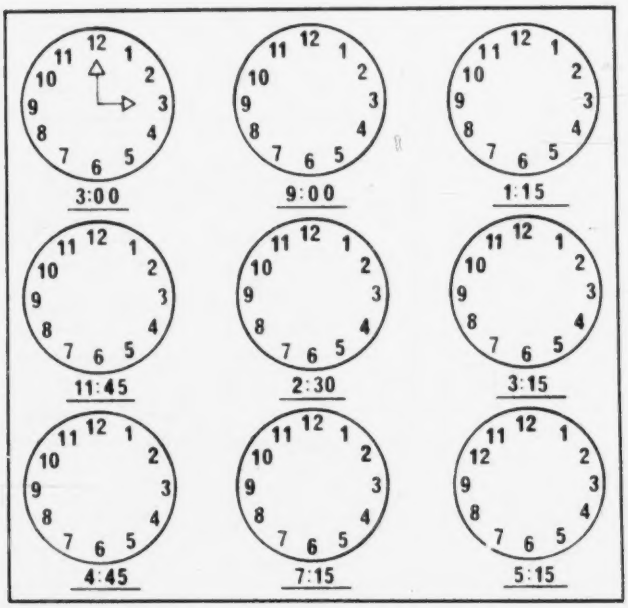
8. SKILL: Regrouping

DIRECTIONS: Complete the problem cards. (Have about 20 cards in envelope.) Check answers with answers on back of card.



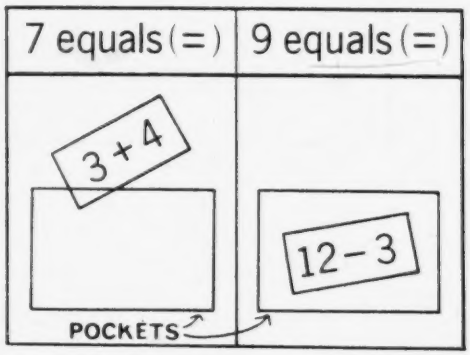
9. SKILL: Understand time concepts, hours, minute, half hour, quarter hour

DIRECTIONS: Place movable hands on correct time. Check answers with clocks on answer card. (Put numerals and movable hands on each clock face.)



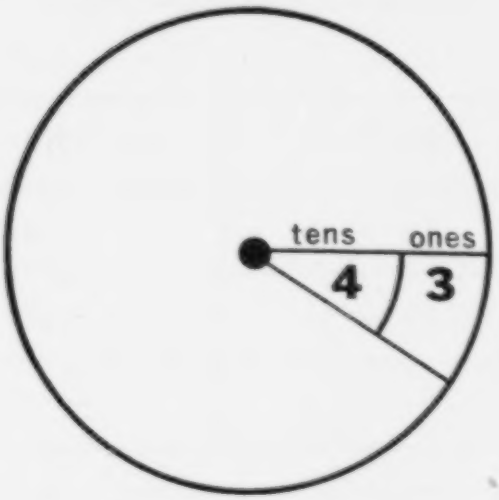
10. SKILL: Understanding sets and subsets

DIRECTIONS: Place flash cards with number combination into correct pocket. Answers can be copied on to a sheet of paper. Check answers with answer cards.



11. SKILL: Regrouping

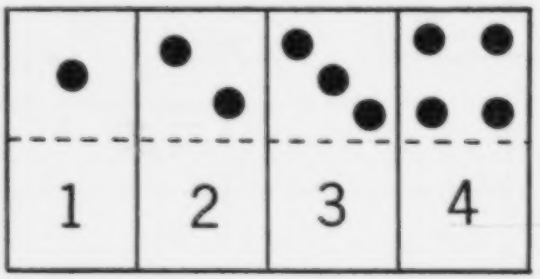
DIRECTIONS: Turn top disc 10 times, each time you turn disc there will be a different combination of numerals appearing in the window. Record your answers to the mathematical sentence on a separate sheet of paper. Check answers with teacher.



___:___tens and___ones

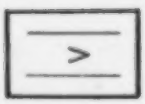
12. SKILL: Match set with numeral

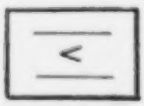
DIRECTIONS: Match numeral cards with set cards. After you have matched all cards turn set card over to see if numeral card corresponds with numeral on the back of the set card.



13. SKILL: Compare numerals

DIRECTIONS: Put the correct symbol card on each **blank** line (make about 10 such cards varying in degree of difficulty in each manilla (envelope). Check answers with answer cards.





36 _____ 45	83 _____ 65
29 _____ 37	90 _____ 71
16 _____ 28	40 _____ 25
63 _____ 81	39 _____ 12
17 _____ 17	52 _____ 52

14. SKILL: Computation and regrouping

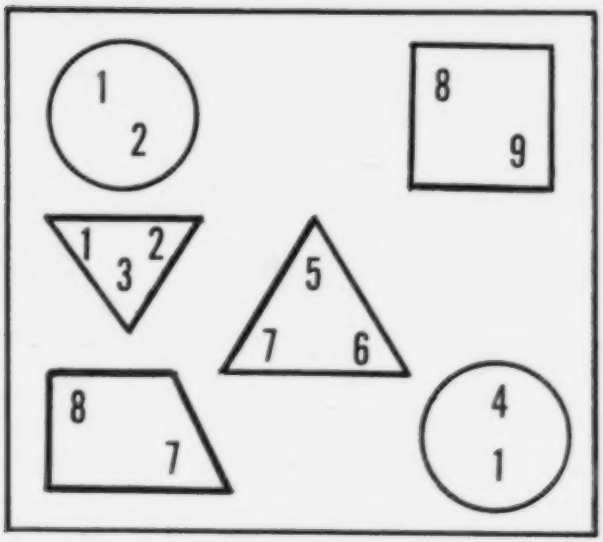
DIRECTIONS: Match appropriate lotto cards with number combinations on large lotto card. (Make many small lotto card combinations and large lotto cards.) Answers can be transferred to a piece of paper and then checked with the attached answer sheet.

30 + 4	50 + 8
50 + 6	20 + 9
20 + 3	40 + 8
50 + 2	60 + 3

3 tens 4 ones	34

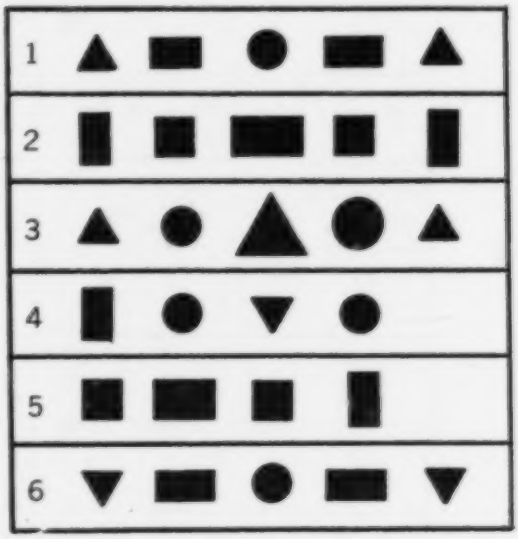
15. SKILL: Compute numbers to sum of 20

DIRECTIONS: Match plastic chips to the sum of numerals in shapes on chart. Have another student check your answers.



16. SKILL: Compare size, shapes and colors

DIRECTIONS: Match felt shapes to picture patterns.



17. SKILL: Understanding of number, word, numeral, fact combinations

DIRECTIONS: Match number, word fact and dot picture for each numeral. After entire card is complete check with answer card.

TWO	1+1	●●
NUMBER WORD	FACT CARD	DOT PICTURE

2	8	4	5
11	12	14	1
3	7	9	13
16	10	18	20

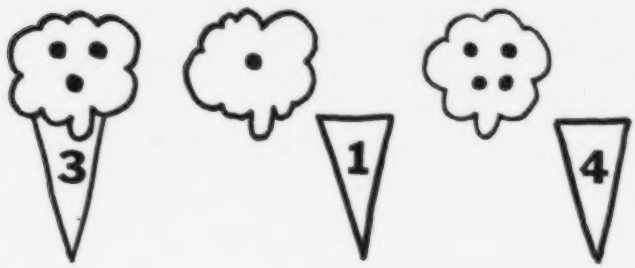
18. SKILL: Understanding of number word, numeral, combination facts and sets

DIRECTIONS: Make numerals, number words, combination facts, and set cards and place them in the missing spaces.

2		□ □	
	five		4+1
7			6+1
	three	□ □ □	

19. SKILL: Match set with number

DIRECTIONS: (Make ice-cream cones, separate top portion from bottom.) Order cones and match ice-cream "set top" with "cone numeral." Turn ice-cream cone over; did you match the ice-cream with the correct cone?



20. SKILL: Ordering of numbers

DIRECTIONS: Put the correct number of chips in appropriate boxes. Record your answers. Check your answers with answer card.

1	2				
2				6	
3					
4			7		
5					10
6		8			

MINI-MODULE III--Reading or Math Tutor?

ENABLING OBJECTIVE #4B

Section B--Math

> After planning a math lesson with a classroom teacher using a section of the daily newspaper, the volunteer will be able to use the classified food section of the newspaper to teach intermediate level students ratios and percentages of numbers.

ACTIVITIES FOR ENABLING OBJECTIVES #4B:

1. Discuss with an intermediate grade level teacher ideas on using the daily newspaper to teach certain math concepts. Plan with the teacher how you can teach a small group of students about the value of money and the purchasing power of the dollar by using the classified food pages of the newspaper.

2. Follow through with 4 students the plans you developed in activity 2.

3. Write a brief description of the outcome of activity 3.

4. Design a math activity for intermediate grade level students using the newspaper. Focus on the objectives: percentages of numerals and ratios.

5. Go back to question 4B of the Pre-assessment, Section B, page 43 .

FEEDBACK SHEET

VOLUNTEER EDUCATION MODULE

MODULE TITLE: _____

PARTICIPANT: _____

POSITION: Regular Volunteer _____, Student Volunteer _____, Teacher _____

SCHOOL: _____ DATE: _____

CLASSROOM LEVEL: _____ Elem. _____ Jr.High _____ Sr.High _____ Other

SUBJECT SPECIALITY: _____

DIRECTIONS: Obtain or make a copy of this FEEDBACK SHEET, then circle the number which best indicates your reaction to each question. Have the School Volunteer Resource Person sign in the space provided to verify your satisfactory completion of this module's objectives.

		NO				YES
1.	Were the objectives to be achieved clear to you before you began working?	1	2	3	4	5
2.	Are sufficient instructional activities and/or resources included to meet objectives?	1	2	3	4	5
3.	Are the resources an effective means for changing volunteer behavior to meet the objectives?	1	2	3	4	5
4.	Is a system provided for on-going feedback as to your own progress in mastering the objectives?	1	2	3	4	5
5.	Are alternate activities included to provide for differences in volunteer learning styles?	1	2	3	4	5
6.	Does the module make a contribution to developing relevant volunteer competencies?	1	2	3	4	5
7.	Does the module appear to be a more effective way to spend volunteer training time than alternate strategies you are aware of?	1	2	3	4	5
8.	Is the material well organized and readable?	1	2	3	4	5
9.	Does it contribute to individualizing instruction?	1	2	3	4	5

(Continued on next page)

	NO				YES
10. Are the AV components free from auditory and visual difficulties for regular classroom use? (Answer when question is applicable to particular module.)	1	2	3	4	5

11. What changes would you suggest for improving the objectives?

12. What changes would you suggest for improving the resources?

13. What changes would you suggest for improving the activities?

14. What changes would you suggest for improving the pre and post assessment sections of the module?

15. What changes would you suggest for meeting the needs of participants who have varying entering abilities and backgrounds?

16. What suggestions would you make for motivating other teachers to use the B-2 Modules to improve their professional skills?

NAME OF PARTICIPANT: _____ has satisfactorily completed the objectives of this module.

_____	_____	_____
Signature of School Volunteer Resource Person	School	Date

RETURN THIS MODULE AND THE FEEDBACK SHEET TO:

School Volunteer Program
1410 N. E. 2 Avenue, Room 210
Dade County Public Schools
Miami, Florida 33132

OR

A-1, School Volunteer Program
Room 210, Lindsey Hopkins Building

INDIVIDUALIZED VOLUNTEER EDUCATION MATERIALS

A DESCRIPTION OF THE B-2 MODEL FOR PACKAGED VOLUNTEER TRAINING MODULES

A major objective of the 1969 Florida EPDA B-2 Program was to develop individualized teacher training materials. These materials were designed to be used in either pre-service or in-service teacher education. They were prepared in the form of a self-contained "packaged" module aimed at specific teaching skills or specific concepts fundamental to teaching. Each module was expected to include all of the information and directions needed to accomplish a set of observable goals.

An outgrowth of this effort has been the extension of this type of training presentation to the volunteer in the school setting. This 1971 project in material development for volunteer workers in education capitalizes on the most successful aspects of the original teacher training modules while adding additional features to further extend the concept of individualized training.

The design or model used in preparing these materials is set up so that each of the important elements (outlined below) will fulfill specific functions in assisting a user to achieve the stated goal of the module. Materials which follow this basic model will fulfill these specifications.

Objectives

The objectives describe clearly what the user should be able to do after successfully completing the activities. Objectives are stated in terms of observable, measurable behavior of the user. Two types of objectives are included:

TERMINAL OBJECTIVES will describe competencies which the volunteer will be able to apply in carrying out his function.

ENABLING OBJECTIVES will describe the sample performances which represent simplified versions of the behavior described in the terminal objective. This tells the user what he must do to complete the prescribed evaluation requirements. Since specific objectives (enabling objectives) must be measurable through methods described in the evaluation (described on the following page), each terminal objective and enabling objective has three characteristics: (1) the performance verb is stated; (2) the conditions under which performance will take place are described; and (3) the criterion level (or the standard) of acceptable performance is specified.

Prospectus

The prospectus describes how the skills taught in the module can be applied to real situations, or how they are related to some

more important purpose. The prospectus also states and describes any skills which are necessary for the learner to possess prior to beginning the module if he is to achieve success with this type of training.

Materials

All materials needed to complete suggested activities are either included or described, and source references are given if it will be necessary to order supplementary print or non-print materials.

Procedures

Procedures are designed so that the user can follow them in chronological sequence as he works to achieve each specific objective. Wherever possible, alternate activities and materials are specified. The sequence for each objective will be outlined in a flow-chart (road map) preceding the enabling activities and will normally include three types of activities:

EXPOSURE to information in the form of suggested or required reading (supplied in the materials or through suggested references), observation of material or live on-site activities, discussions, interviews, etc., to give background information, definitions, directions, models of performance or the like.

INFORMATION-PROCESSING for each of the ideas or performance requirements presented in the exposure to information. These may be in the form of response questions, observation check sheets, discussion responses, verbal or written reports, or other activities which will help the learner master the concepts to which he has previously been exposed.

Appropriate PRACTICE with FEEDBACK. The practice situations are designed to be similar to those which will be used in the evaluation. The feedback provides the learner with information about his behavior in terms of how well he is achieving target performance. This lets the learner know in what way, if any, he needs to further modify his version of the terminal behavior.

Evaluation

The major purpose of the evaluation activities is to determine the level of mastery of each of the enabling objectives for the module as a basis for deciding whether further instructional activities should be pursued. Two types of evaluation are included:

PRE-ASSESSMENT (the pretest or preliminary evaluation) will take place before the learner begins to carry out the suggested procedures. The purpose of pre-assessment measures may be to indicate whether a given objective has already been mastered,

to check readiness or to indicate a need for acquiring prerequisite subskills, or simply to provide a baseline for gauging progress, as compared with results of the terminal activity.

TERMINAL ACTIVITY (the post-test, or final evaluation) will take place after the enabling activities have been completed, or after one has successfully completed all of the pre-assessment. The terminal activity will indicate either that the objective has been achieved, or that further instructional activities should be pursued.